

would be suitable for a three-way interference among the above-identified patent application, the '421 patent and the '354 patent reads as follows:

PROPOSED COUNT

A method of performing a surgical procedure for the removal of biological tissue comprising the steps of:

generating a laser beam having a wavelength of between 1.4 and 2.2 microns;

directing the beam into one end of a fiber optic cable, with the other end of the fiber optic cable defining the delivery end thereof;

positioning the delivery end of the fiber optic cable at the surgical site;

removing tissue at the surgical site with the laser beam; and

transmitting a fluid medium to the surgical site.

It is requested that the foregoing count be substituted for or used in lieu of the proposed count set forth in the first preliminary amendment filed in this application. The above proposed count is more appropriate for an interference involving both the '354 patent and the '421 patent, as it more closely tracks all of the claims in the two patents. This proposed count is substantially similar to the proposed count set forth in the first preliminary amendment, except for the deletion of "or repair" in the preamble, except for the

recitation of the additional step of "removing tissue at the surgical site with the laser beam", and except for the change in the last step to "transmitting a fluid medium to the surgical site."

Claims 1-6 of the '421 patent and Claims 1-9 of the '354 patent all correspond to the proposed count. In the present application, Claims 71-76, as added by the first preliminary amendment and Claims 77-83, as added by this amendment, also correspond to the proposed count.. Claims 71 and 76 were substantially copied from Claim 1 of the '421 patent, and Claims 72-75 were substantially copied from Claims 2, 3, 4, and 6 respectively of the '421 patent. Claim 77 was substantially copied from Claim 4 of the '354 patent while Claims 78 and 79 were substantially copied from Claims 5 and 6 respectively of the '354 patent. Claim 80 was substantially copied from Claim 7 of the '354 patent, while Claims 81 and 82 were substantially copied from Claims 8 and 9 respectively of the '354 patent. Claim 83 was also substantially copied from Claims 1 and 4 of the '354 patent. Claim 1 of the '421 patent, Claims 1, 4 and 7 of the '354 patent and new Claims 71, 76, 77, 80 and 83 in this application all claim the same patentable invention.

The specification in the '354 patent is identical in every respect to the specification in the '421 patent. The '354 patent issued from an application which was a continuation of Application Serial No. 626,388 which issued as the '421 patent.

It is also apparent that the '354 patent claims are patentably indistinct from those of the '421 patent, since the Applicant in the '354 patent was required to file a Terminal Disclaimer. Thus, if the claims in the present invention claim the same patentable invention as that claimed in either one of the '354 patent or the '421 patent, then the foregoing claims of the present application also claim the same patentable invention as that claimed in the other of the '421 and '354 patents.

As can be seen, the proposed count herein does not correspond exactly to Claim 1 of the '421 patent, or to Claims 1, 4 and 7 of the '354 patent. The proposed count is broader in some respects than any of these patent claims. In the first place, the preamble has been changed from the preambles noted in each of the patent claims to -- A method of performing a surgical procedure for the removal of biological tissue --. This preamble encompasses each of the preambles of the claims in the '421 patent and the '354 patent, since it is clear from the specification of either patent that an arthroscopic procedure and an endoscopic procedure both are simply surgical procedures for the removal of biological tissue. Support for this proposition, as noted in the first preliminary amendment, can be found in the '421 patent, Column 1, Line 28; Column 1, Lines 36-39; Column 2, Lines 16-18; Column 2, Lines 27-30; and Column 2, Lines 47-62. It is also clear that arthroscopy is

considered to be an endoscopic procedure (See Column 1, lines 25-26 of the '354 patent). While Applicant's application is directed to tissue removal generally and does not specifically discuss an arthroscopic or endoscopic procedure, both the present application and the '421 and '354 patents relate to the same patentable invention, i.e. the surgical removal of biological tissue with a laser.

In addition to the change in the preamble, the recited wavelength range of 1.8-2.2 microns in the '354 and '421 patents has been changed to 1.4-2.2 microns, the range recited in Applicant's claims. The recited wavelength range in the patents is within the range recited in the count, and constitutes the same patentable invention. The recitation "adjacent the tissue to ablated by the laser beam" has been changed to "at the surgical site." This latter recitation is broader than the patent claim, is supported by Applicant's specification, and recites the same patentable invention.

Each of Claims 71, 76, 77, 80 and 83 and the proposed count differs from corresponding Claims 1, 4 and 7 of the '354 patent and Claim 1 of the '421 patent in the last paragraphs. The term "tissue" in the '354 and '421 patents has been changed to --surgical site-- for the reasons discussed above. The recitation "as it is being ablated by the laser beam" in Claim 1 of the '354 patent and in Claim 1 of the '421 patent does not appear in Claim 71-83 of the present application or in the proposed count. Similarly, the recitation "while the tissue is maintained in a fluid field" in Claims 4 and 7 of the '354

patent is not found in Claims 71-83 of the present application, or in the proposed count. In Claims 80 and 83 and the count, these latter recitations in Claim 1 of the '421 patent and Claims 1, 4 and 7 of the '354 patent have been replaced by the following two limitations: --removing tissue at the surgical site with the laser beam; and transmitting a fluid medium to the surgical site.-- The terms "removing" and "transmitting" were selected because they are supported by Applicant's specification and are broader than the corresponding terms "ablating" and "irrigating" or "maintaining" found in the '421 and '354 patents. These two recitations recite positively two limitations that are found in the last element of each patent claim, one of which is positively recited, while the other one is not. In Claim 1 of the '354 patent and in Claim 1 of the '421 patent, the "irrigating" limitation is recited positively, while the "ablating" step is not. In Claims 4 and 7 of the '354 patent, the "ablating" step is positively recited, while the step of maintaining the tissue in a fluid field, the equivalent of the "irrigating" step, is not.

The concept of irrigation of tissue with a liquid medium as it is being ablated by a laser beam, or the maintenance of the tissue in a fluid field while it is being ablated, is old in the art and is taught specifically in U.S. Patent No. 4,448,188 (Loeb) and in U.S. Patent No. 4,732,448 (Goldenberg). Both patents teach irrigation of a surgical site during the ablation

process, and Loeb specifically teaches such irrigation when using a laser operating at infrared wavelengths. For example, see Loeb, Column 2, Lines 13-31; Column 4, Lines 4-64; Column 9, Lines 60-63; and Goldenberg, Column 3, Lines 29-38; and Column 8, Lines 30-46. Since this element is old in the art, it is not a limitation which patentably distinguishes the claims of the '354 and '421 patents from the claims of the present application, even though it was argued to do so by Boutacoff et. al. during prosecution of the '421 patent. Thus, this limitation need not appear in the proposed count, or in Applicant's corresponding claims.

The proposed count and Applicant's Claims 71, 76, 77, 80 and 83 each recite the same patentable invention as Claims 1, 4 and 7 of the '354 patent and Claim 1 of the '421 patent, as defined in 37 C.F.R. §1.601 (n). The count and each of Claims 71, 76, 77, 80 and 83 are supported by Applicant's specification. The proposed count is broader than any of Claims 1, 4 and 7 of the '354 patent, as well as Claim 1 of the '421 patent. The term "removing" is broader than "ablating" and "transmitting" is broader than either "irrigating" or "maintaining". Also, the recited wavelength range in the count and the preamble thereof are broader than the corresponding elements of the patent claims. Thus, the count is acceptable pursuant to 37 C.F.R. §1.606 which only states that the count cannot be narrower than the corresponding patent claim. If the

Examiner determines that the proposed count is unacceptable, Applicant would be willing to consider a phantom count suggested by the Examiner, although Applicant would prefer a count which tracks the patent claims, but is broader in scope.

The following is an application of each term of Claims 77, 80 and 83 to the above-identified application (Claims 71-76 were applied in the first preliminary amendment):

<u>Elements of 77, 80 and 83</u>	<u>Support in Application Serial No. 049,157</u>
1. A method of performing a surgical procedure for the removal of biological tissue	Page 6, Lines 11-24
2. Generating a laser beam having a wavelength of between 1.4 and 2.2 microns	Page 6, Lines 1-6
3. Directing the beam into a proximal end of a fiber optic cable	Page 13,, Lines 12-15 Page 21, Lines 19-20
4. With the other end of the fiber optic cable defining the distal end thereof (Claim 77 and 83)	Page 13, Lines 19-22 Page 15, Lines 11-14 Page 21, Lines 21-22
5. Providing a fiber optic cable with a proximal end and a distal end (Claim 80)	Page 13, Lines 10-18 Page 17, Lines 8 through Page 19, Line 6 Page 21, Lines 18-22
6. With the fiberoptic cable being surrounded by an elongated tubular member (Claim 80)	Page 13, Lines 15-18

Elements of 77, 80 and 83

Support in Application  
Serial No. 049,157

7. Positioning the distal end of the fiber optic cable at the surgical site

Page 1, Lines 13-21  
Page 14, Lines 17-25  
Page 21, Lines 21-23  
Page 31, Lines 1 and 2  
Column 9, Lines 3-16 of  
U.S. Patent No. 4,850,351,  
the specification of which  
is incorporated by refer-  
ence in the subject  
application at Page 20,  
Lines 3-8

8. Removing tissue at the surgical site with the laser beam

Page 6, Lines 11-14

9. Transmitting a fluid medium to the surgical site (Claims 80 and 83)

Page 15, Lines 1-10

Claims 78 and 79 correspond to Claims 5 and 6 of the '354 patent. Claims 81 and 82 correspond to the Claims 8 and 9 of the '354 patent. Claims 78, 79, 81 and 82 do not define separate patentable inventions. Each of Claims 78, 79, 81 and 82 find support in the present application at Page 6, Lines 5-7.

No prima facie is showing under 37 C.F.R. §1.608 is required, since Applicant's earliest effective filing date, July 31, 1985, precedes the earliest effective filing date, August 19, 1988, of the application resulting in either of the '421 patent or the '354 patent.

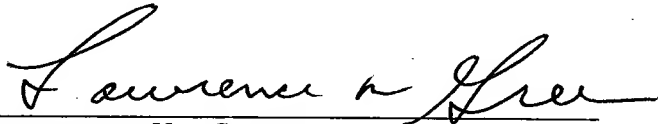


It is respectfully requested that the enclosed Information Disclosure Statement be considered.

It is submitted that all of the claims presently contained in this application are in condition for allowance. It is respectfully requested that an interference be declared between this application and U.S. Patent Nos. 5,037,421 and 5,147,354.

Respectfully submitted,

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A handwritten signature in cursive script, appearing to read "Lawrence M. Green", written over a horizontal line.

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